Abstract of the Disclosure

A traffic measurement system and a traffic analysis method are provided. The traffic measurement system includes a plurality of measurement devices that collect all of packets flowing through Internet links, extract traffic data required to analyze traffic from the collected packets, and process the extracted data into predetermined flow types, and an analysis server that identifies applications of traffic by analyzing the traffic data transferred from the plurality of measurement devices as a whole, classifies the identified applications into predetermined traffic types, and outputs the classification result. The traffic measurement system measures the traffics in the Internet network and processes the measured traffics to generate detailed traffic statistical data according to applications. In particular, the traffics are analyzed considering measurement data from various points, and the data for identifying the applications are extracted from headers of the applications included in payloads of IP packets in real time. Accordingly, detailed traffic analysis result is provided.